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Abstract *Background*: This study focuses on sex differences in depression of the widowed. Previous research showed different results in sex differences and in depression after bereavement. We assessed the effects of widowhood on depressive symptoms for men and women and examined whether environmental strain like social support, finances and housekeeping concerns explain these effects. *Methods*: Data were used from a large community-based study of older people in three regions of the Netherlands. Our study sample consists of 2626 widowed and married subjects in the age group of 55-85 years. Depression was measured using the CES-D scale; the various strains were obtained by structured interviews. Multiple linear regression, performed for men and women separately, were used. *Results*: The results show that widowhood is associated with higher levels of depressive symptoms and that this association is stronger for men than for women. The effect of widowhood is mediated by different types of environmental strain for men and women. However, a strong direct main effect of widowhood on depression remains. The difference in depression rates between men and women is most evident among those widowed for a longer period of time. *Conclusions*: It appears that, over time, women adapt to widowhood more successfully than men. From a clinical point of view this is important, as it suggests that men who remain alone after losing their partner are at a higher risk of developing symptoms of chronic depression.

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Introduction

A frequent finding in previous research has been that depression is more common in females than in males. Weissman and Klerman (1977) reported that women are twice as likely as men to be diagnosed with depressive syndromes. This finding is replicated in later reviews (Jorm 1987; Nolen-Hoeksema 1987; Bebbington 1996). However, among bereaved people a lack of agreement regarding the effects of gender is seen (Lund 1989; Cleiren 1992; Sanders 1993). Stroebe and Stroebe (1983, 1987) found that although married women show higher rates of depression than married men, this difference disappears when samples of widowed men and women are studied. Since the widowed in general have higher depression rates than the married, the disappearance of this sex difference is likely to be due to a smaller increase in the incidence of depression among the female than the male bereaved. Umberson et al. (1992) concluded that ever having been widowed is associated with current levels of depression, and that this association is stronger in men than in women. Other investigators observe no significant sex differences in depression rates among the widowed (Lund et al. 1986; Van Zandt et al. 1989; Stevens 1995).

The main theoretical explanations regarding sex differences in depression after bereavement proffered that specific socio-emotional and instrumental aspects of marriage may differ between men and women. Social relationships may alleviate stress because of the role they play in moderating or buffering the impact of life stressors (Turner 1983). Brown and Harris (1978) found that the impact of stressful life events on the mental

health of their sample of London women was moderated by the general level of intimacy they experienced with their spouses and the amount of social support they typically received from their partners. A number of investigators have identified the presence of social support networks for the bereaved as crucial for good outcomes (Stroebe and Stroebe 1987; Sanders 1993; Stylianos and Vachon 1993). It seems more difficult for widowers than for widows to maintain or find sources of social support. A number of reasons are proposed. First, women are, on the whole, more likely to express their feelings (both pleasant and unpleasant) than men (Briscoe 1982). As Lynch (1977) emphasized, according to present cultural norms it is much less acceptable for men than for women to admit feelings of loneliness and a need for companionship. Men may therefore actually accept less support than they need (Longino and Lipman 1981). Second, in many marriages, the social relations are maintained by the wives (Wortman et al. 1993). Women are also more likely than men to have a close confiding relationship with another person (Powers and Bultena 1976) and, in particular, are more likely than men to have a confidant in addition to their spouse (Fischer and Phillips 1982). The reliance on their wives to facilitate social participation may lead men to depend more on their spouses for intimacy, social participation and social support (Umberson et al. 1992). Widowhood is therefore more likely to leave men in a situation with no-one to turn to (Peters and Kaiser 1986). Third, because widows greatly outnumber widowers, the widower has a smaller reference group available to him to identify with and to provide social support (Stroebe and Stroebe 1983). When a man has become widowed, other men his age are most likely to be still married or already have remarried (Lopata 1987).

Men generally also receive substantially more instrumental advantages from marriage than women do in the form of housekeeping services (Hartman 1981; Gove and Tudor 1973). Brubaker (1985) suggested that a wife often assumes the role of housekeeper among elderly couples and death usually forces her husband to take on this role and to learn new tasks. This may constitute an important source of strain for bereaved men. On the other hand, since men earn, on average, substantially more than women (Marini 1989; NCBS 1994), women obtain more financial advantages from marriage. As a result, many wives experience a drop in income with the death of the husband (Lopata and Brehm 1986).

The gender and marital role literature suggests that men may obtain more advantages than women from the roles fulfilled by their spouses, so the consequences of bereavement are at first relatively more severe for men than for women. Previous studies focused especially on the first 1 or 2 years after widowhood. However, more recent research shows also long-term effects of widowhood on psychological well-being (Avis et al. 1991; Mendes de Leon et al. 1994). The purpose of the present study is first to compare long-term differences in vulnerability to depressive symptoms between widowed men and women in an elderly population. The second aim is to examine the influence of time since bereavement on depression scores for men and women. The third aim is to consider social, financial and housekeeping factors to which sex differences in depression may be attributed.

Subjects and methods

Sample

The present study is part of the 'Longitudinal Aging Study Amsterdam' (LASA), a 10-year interdisciplinary study on predictors and consequences of changes in autonomy and well-being in the elderly (Deeg and Westendorp-de Serière 1994). LASA uses the sample recruited by the NESTOR programme, Living Arrangements and Social Networks of Older Adults in the Netherlands (LSN; Knipscheer et al. 1995). LSN participants were approached for the first LASA cycle after 10 months. The LSN/LASA cohort was based on a random sample of older adults (aged 55–85 years) stratified for age, sex and expected mortality after 5 years into the study. Registers of 11 municipalities in areas in the west, north-east and south of the Netherlands provided the sampling frame, so that a sample representative of the Dutch older population with respect to geographic region and degree of urbanization was selected. Both the LSN interview and the LASA interview were conducted in the homes of the respondents by specially trained and intensively supervised interviewers. All interviews were tape-recorded in order to monitor the quality of the data. Informed consent was obtained from all subjects according to approved local procedures. The realized number of respondents in the LSN sample was 3805. The response rate was 62.3% (refusal rate 28.1%; deceased/too frail/ineligible 10.3%). The non-response was associated with sex ($P < 0.05$); females were less likely to respond. From these, a total of 3107 (81.7%) participated in the LASA baseline interview (refusal rate 10.4%; deceased/too frail/ineligible 7.9%). Attrition was not related to sex. Persons who were widowed but had remarried were excluded from the study. This also applies to those who live together with someone they regard as a partner following loss of their spouse. The reason for removing this group, consisting of 98 subjects, is that their circumstances are similar to the time before widowhood. A further 204 subjects were excluded because they were never married and another 143 persons because they were divorced. Due to item non-response on the dependent variable, a further 36 subjects were lost for analyses, leaving a final study sample of 2626 subjects: 778 widowed and 1848 married.

Instruments

Dependent variable

Depressive symptoms were measured using the Center for Epidemiologic Studies Depression Scale (CES-D). This is a 20-item self-report scale developed to measure depressive symptoms in the community (Radloff 1977). The Dutch translation has good psychometric properties (Cronbach's $\alpha = 0.87$). Items are scored on a four-point scale (0–3) designating the frequency of occurrence in the previous week. The total score of the CES-D ranges from 0 to 60. Higher scores on the CES-D indicate more depressive symptoms.

Strain variables

These include variables regarding social support, finances and housekeeping.

Social support. The size of social network and the exchange of instrumental and emotional support were used to assess social

support. The social network of persons with whom the respondents maintained an important and frequent relationship were determined by using a procedure based on Cochran et al. (1990; van Tilburg 1994). Seven categories of contacts were distinguished; persons living in the same household, children and children-in-law, other relatives, neighbours, persons with whom one has been working or studying, contacts in organizations, and other contacts. The size of the network was determined by the total number of people named in the seven categories. Questions on instrumental and emotional support were asked about each of nine network members with whom contact was most frequent. In order to obtain comparable values for the support of respondents with and without a partner, the partner was not included. The instrumental support items contain questions about how often during the previous year the respondent had received help with daily chores around the house, such as preparing meals, cleaning the house, transportation and small repairs. For emotional support the respondents were asked how often, during the previous year, they had talked to each of their network members about personal experiences and feelings. Response categories were 'never' (0), 'rarely' (1), 'sometimes' (2) and 'often' (3). For each support variable the scores across network members were summed to a maximum of 36 (9×4).

Finances. The household income was computed by summing the income of the respondent and, when present, of their partner. To be able to compare the income of two partners (the married) with the people who have only one income (the widowed), we multiplied the total household income for two people by a factor of 0.7 (Schiepers 1988). The large number of missing values (15.2%) was mainly caused by a refusal to answer this question. For the second variable, satisfaction with income, we combined the following questions: "Are you satisfied with your income?" and "Are you satisfied with the living standard you reach with your income?". For both questions there were five response possibilities, which ranged from 'dissatisfied' to 'satisfied' (Krause 1991). We created one variable by summing the outcomes of these two variables (range 2–10).

Housekeeping. The time spent and the help received with housekeeping work was measured using three variables.

1. Light housekeeping tasks such as doing dishes, dusting, making the bed, doing the laundry, cleaning and cooking
2. Heavy housekeeping tasks such as window cleaning, washing or scrubbing the floor, and chores and repairs like sawing, carpeting or painting
3. Whether or not one is getting help with housekeeping tasks (1 = yes, 0 = no)

Covariates

Control variables include age, number of chronic diseases and functional ability. Self-reports were obtained for the six physical chronic diseases that are most prevalent in the older population: chronic lung disease, cardiovascular disease, stroke, diabetes, cancer and arthritis (NCBS 1989; Kriegsman et al. 1996). Functional limitations were considered to be present when the respondent reported experiencing difficulty performing at least one of the following three activities: climbing stairs, using their own or public transport, or cutting their own toenails (van Sonsbeek 1988). The reliability of this scale was satisfactory (Cronbach's $\alpha = 0.70$).

Independent variable

Widowhood status (widowhood = 1, married = 0) was determined by the marital status of the LASA baseline. To show differences in long-term and short-term effects of widowhood on depression, we divided the widowed into two groups. One group of subjects who had been widowed for 4 years or less and another group of subjects who had been widowed for more than 4 years. The choice of 4 years as a cut-off was made for two reasons. The first reason was to get answer to the question of whether individuals' lives were changed by widowhood in such a way as to sustain elevated rates of depression. Stevens (1989) stated that it takes, on average, 3–5 years to adapt to the loss of the husband. Ferraro et al. (1984) also used a cut-off of 4 years following the work of Pihlblad and Adams (1972) and Parkes (1970). They stated that a cutting point of 4 years is adequate to tap the final phase of reorganization of behaviour. The second reason is a methodological one. We wanted to get sufficient power in the analyses, and the number of male subjects recently bereaved was optimal using the cutting point of 4 years (Cohen 1992). For 91.9% of the 778 widows the exact date of bereavement was known ($n = 715$). Table 1 shows the distribution of years of widowhood.

Data analysis

Multiple linear regression analyses were used. All regression models included age, functional ability and number of diseases as control variables. The analyses were performed for men and women separately. The main effect of widowhood on depression scores was examined by regressing the CES-D score on widowhood. To examine long-term and short-term effects of widowhood on depression we repeated the analyses with the subjects who were widowed for more than 4 years and those who were widowed for 4 years or less. Gender effects of widowhood were estimated in the full sample using equations that include widowhood status, gender and an interaction term that was the cross-product of both. In order for a strain variable to be designated as a factor that mediates the widowhood-depression relationship, widowhood must have a significant effect on the strain variable and the strain variable must be associated with depression, controlling for widowhood (Umberson et al. 1992).

So first we evaluated whether widowhood is associated with environmental strain, by estimating separate equations for each strain, regressing the strain variable on widowhood status. Second we evaluated the association of the strain variables with depression, by estimating one equation in which CES-D scores are regressed on widowhood, the control variables and the strain variables.

Results

Sample characteristics

Characteristics of the study sample are presented separately for men and women in Table 2. Due to the sampling procedure, men and women were fairly evenly represented. The higher proportion of older old reflects the intended even age-distribution of subjects 5 years

Table 1 Distribution of years of widowhood

Years of widowhood	Widowed men *n*	Widowed women *n*
≤1	22	30
1–2	17	24
2–3	19	30
3–4	13	26
Total ≤4	*71*	*110*
4–5	12	28
5–6	11	27
6–7	10	26
7–8	5	24
8–9	8	28
9–10	6	24
Total >4 and ≤10	*52*	*157*
Total >10	*41*	*284*
In total	*164*	*551*

Table 2 Characteristics of the study sample ($n = 2626$)

Characteristic	Men *n* (%)	Mean (SD)	Women *n* (%)	Mean (SD)
Age		70.8 (8.7)		70.5 (8.8)
55–64	388 (31.1)		441 (32.0)	
65–74	381 (30.5)		441 (32.0)	
75–85	479 (38.4)		496 (36.0)	
Marital status				
Married	1063 (85.2)		785 (57.0)	
Widowed	185 (14.8)		593 (43.0)	
Years of widowhood		7.1 (7.2)		12.5 (9.6)
Network size		14.3 (8.4)		14.2 (8.2)
Household income (in Dutch guilders)		2255 (1739)		1825 (2098)
≤1430	294 (27.0)		540 (47.9)	
>1430 ≤2750	552 (50.6)		447 (39.6)	
>2750	244 (22.4)		141 (12.5)	
Light housekeeping, time in minutes spent a day		53.4 (57.5)		134.7 (86.9)
Heavy housekeeping, time in minutes spent a day		53.6 (85.9)		66.8 (87.4)
Functional limitations				
None	827 (66.6)		721 (53.0)	
One or more	414 (33.4)		640 (47.0)	
Chronic physical illness				
None	459 (36.8)		437 (31.8)	
One or more	788 (62.2)		938 (68.2)	
Depressive symptoms		7.9 (7.8)		9.2 (8.4)
CES-D < 16	1120 (89.7)		1132 (82.1)	
CES-D ≥ 16	128 (10.3)		246 (17.9)	

into the study. In our sample men were widowed for an average of 7.1 years and women for an average of 12.5 years. More than half of the total sample (65.9%) had at least one chronic disease, and 33.4% of the men reported at least one functional limitation versus 47.0% of the women. This shows that attrition did not reduce the sample to a selection of healthy older individuals. CES-D scores were elevated (≥16) for 10.3% of the male and 17.9% of the female subjects.

The estimated effects of widowhood on depression

The results of the estimated effects of widowhood on depression are given in Table 3. CES-D scores were regressed on widowhood, controlling for age, functional ability and the number of chronic diseases. Both widowed men and women had significantly more depressive symptoms than married men and women. Within the married subjects, women had more depressive symptoms than men (8.0 vs 5.7). Within the widowed group there was no sex difference in depressive symptoms scores (10.8 vs 10.7). The relative increase in depressive symptoms due to widowhood appears to be much greater among men (5.0 score points) than among women (2.8 score points). This is confirmed by the highly significant interaction term ($\beta = -0.071$; $P < 0.001$), indicating that men are more vulnerable than women to depression following widowhood.

Table 3 further shows the results of separate analyses carried out for those with short-term versus long-term bereavement, both compared with the same married group. Among the recently widowed, both men and women have significantly higher scores on the CES-D, but no interaction effect is seen. In the group who were widowed for more than 4 years, the depressive symptoms in men are significantly higher than those in married men, while widowed women have almost the same depression level as married women. This higher level of depressive symptoms for men who lost their wife more than 4 years previously results in a significant interaction effect ($\beta = -0.073$; $P < 0.001$). Thus it appears that recently widowed men are equally vulnerable to depressive symptoms as recently widowed women. Men who had been widowed for a longer period remained at a high level of depressive symptoms, while widowed women became less depressed over time.

Additional analyses (not shown in a Table), using a cut-off of 3 years, did not substantially change the results. For men the β changed, in comparison to a cut-off of 4 years, from 0.211 ($P < 0.001$) to 0.225 ($P < 0.001$) and for women from 0.219 ($P < 0.001$) to 0.223 ($P < 0.001$). No interaction between widowhood status and sex was seen. Further analyses not including the widowed who were bereaved in the 1st year, using a cut-off of 4 years, did not result in substantially different findings either. For men the β changed, in comparison with the group widowed ≤ 4 years, from 0.211 ($P < 0.001$) to 0.138 ($P < 0.001$) and for women from 0.219 ($P < 0.001$) to 0.142 ($P < 0.001$). Still no interaction effect was seen. To see if the sex difference in vulnerability to depression in those who had been widowed for more than 4 years would

Table 3 Standardized regression coefficients for the estimated effects of widowhood on CES-D scores, controlling for age, functional limitations and numbers of diseases

	Men	Women	Interaction effect sex × widowhood status
Total sample			
Mean CES-D widowed	10.7	10.8	
Mean CES-D married	5.7	8.0	
β	0.219***	0.100***	−0.071***
Widowed ≤ 4 years compared to married			
Mean CES-D widowed	11.8	14.2	
Mean CES-D married	5.7	8.0	
β	0.211***	0.219***	0.000
Widowed > 4 years compared to married			
Mean CES-D widowed	10.0	9.8	
Mean CES-D married	5.7	8.0	
β	0.137***	0.017	−0.073***

*$P < 0.05$; **$P < 0.01$; ***$P < 0.001$

be the result of a longer time having passed for women, we did further linear multiple regressions within the widowed group. These did not show a sex difference for men in the effect of duration of widowhood on depression [$\beta = -0.197$ ($P < 0.001$) for women vs $\beta = -0.172$ ($P < 0.05$) for men].

The strains of widowhood

Social support, finances and housekeeping concerns were hypothesized to be potential mediators of the sex differences in depression after widowhood. We next evaluate whether widowhood is associated with these environmental strains. Table 4 shows the results of eight multiple regression analyses, carried out for men and women separately. Separate equations were set up, with each strain variable as the dependent variable, regressed on the control variables and the widowhood variable. We also estimated possible interaction effects between gender and widowhood status in predicting these strain variables. Table 4 shows that *men* who have experienced widowhood, compared to married men, receive less emotional support. They spend much more time on light housekeeping and they receive more help with housekeeping tasks than married men. Widowed *women* receive more instrumental support and report fewer network members than married women. Their incomes do not appear to be substantially different, but widowed women are less satisfied with the income and the living standard they reach with their income. Widowed women spend less time on light housework, but do as much heavy housekeeping tasks as their married counterparts. Widowed women receive less help with housekeeping tasks than married women. Gender differences are indicated by significant interaction effects between widowhood and gender in predicting strains. Concerning social support, it appears that the increase in instrumental support received by women who are widowed is higher than the increase in instrumental support received by men after widowhood. Further gender differences were found in the financial and the housekeeping variables. Dissatisfaction with finance after widowhood is stronger for women. Widowhood appears to have the most impact on light housekeeping tasks. Widowed women spend less time on light housekeeping work than married women, while widowed men spend more time as housekeepers than married men.

Table 4 Standardized regression coefficients for the estimated effects of widowhood on potential strains, controlling for age, functional limitations and number of diseases

Dependent variables	Men	Women	Interaction effect sex × widowhood status
Social support			
Instrumental received	0.018	0.118***	0.047*
Emotional received	−0.078*	−0.043	0.023
Network size	−0.052	−0.114***	−0.010
Finances			
Income household	0.014	0.018	0.005
Income satisfaction	−0.025	−0.142***	−0.055**
Housekeeping concerns			
Light housekeeping	0.213***	−0.172***	−0.195***
Heavy housekeeping	0.009	0.034	0.002
Help with housekeeping tasks	0.060*	−0.094***	−0.031

*$P < 0.05$; **$P < 0.01$; ***$P < 0.001$

Explaining the widowhood-depression relationship

Widowhood appears to have a significant effect on environmental strains, and these effects differ between men and women. The next question is whether these strains explain why widowhood leads to depression. We estimated two equations in which CES-D scores were regressed on all strain variables, widowhood status and the control variables, one each for men and women. Table 5 shows the results of these analyses. Income was omitted, due to the high numbers of missing values and the lack of an interaction effect. Among *men*, being widowed and instrumental support received are associated with higher depression scores, while emotional support received, network size and income satisfaction are associated with lower depression scores. Among *women*, being widowed and receiving help with housekeeping tasks are associated with higher depression scores, while network size and income satisfaction are associated with lower scores on the CES-D scale. The Table also shows regression coefficients of the control variables. Subjects with functional problems or with chronic diseases report more depressive symptoms.

As stated, in order for a strain variable to be designated as a factor that mediates the widowhood-depression relationship, widowhood must have a significant estimated effect on the strain variable and the strain variable must be associated with depression, controlling for widowhood. The strains meeting these criteria for women include network size, income satisfaction level and help with housekeeping tasks. For men there is one mediating strain: emotional support received. Inclusion of all the strain variables in one equation reduces the widowhood coefficient for women from 0.100 ($P < 0.001$) to 0.073 ($P < 0.05$) (as reported in Tables 3, 5) and for men from 0.219 ($P < 0.001$) to 0.201 ($P < 0.001$). This means these strain variables explain slightly more of the widowhood-depression relationship for women than for men. Among women, inclusion of the strain variables reduces the estimated direct effect of widowhood on depression by 27%, among men by 8%. Nevertheless, the estimated direct effect of widowhood on depression levels remains substantial in both men and women. This main effect of widowhood is much stronger among men, suggesting that important factors other than those considered in our model also contribute to widowers' high rate of psychological distress.

Analyses pertaining to the long-term and short-term widowed subjects show that especially in the first years after widowhood, a reduction of the estimated direct effect is seen by inclusion of our strain variables (*not shown*). The group that had been widowed for more than 4 years hardly showed any reduction. This suggests that the factors we considered have a short-term effect on depressive symptoms after widowhood.

Table 5 Standardized regression coefficients for the estimated effects of widowhood and strains on CES-D scores

Independent variables	Men	Women
Widowhood (1 = yes, 0 = no)	0.201***	0.073*
Instrumental support received	0.069*	0.053
Emotional support received	−0.079*	−0.041
Network size	−0.099**	−0.067*
Income satisfaction	−0.154***	−0.116***
Light housekeeping	0.035	−0.031
Heavy housekeeping	−0.028	−0.038
Help with housekeeping tasks	0.031	0.086**
Age	−0.049	−0.066
Functional ability	0.190***	0.176***
Number of chronic diseases	0.157***	0.112***

*$P < 0.05$; **$P < 0.01$; ***$P < 0.001$

Discussion

This study among older Dutch citizens confirmed earlier studies, which found that men experience widowhood as a more emotionally distressing event than women do. This gender difference seems to be limited to those who had been widowed for a longer time. No difference was seen for subjects had been widowed for less than 4 years. Our third question was which factors may explain this gender difference. The hypothesis focused on the different way men and women experience marriage. Primary benefits of marriage for men include increased social connectedness and having someone to perform housekeeping tasks. For women the primary benefit seems to arise from financial security. As a consequence, widowhood poses different strains for men and women. Umberson et al. (1992), who examined the role theory using variables similar to ours, concluded that the primary mechanism linking widowhood to depression among *women* is financial strain. We found only little evidence for this conclusion. Although in our study financial strain also mediated the depression-widowhood relationship, it does not seem to be a primary mechanism, because the main effect of widowhood in our study is much larger than that found by Umberson et al. (1992). The reasons why we could not replicate this result seems that, as compared to the United States, the Netherlands has a much more extensive system of social security, reducing financial strain after bereavement. Widows under the age of 65 receive a special widows' pension (AWW), while those 65 and over receive AOW, an allowance that all older persons receive in the Netherlands.

According to Umberson et al. (1992), the more critical mechanisms among *men* seem to be strains associated with household management. No support was found for this finding in our study. Two reasons can explain the differences with our results. First, in the Netherlands there is almost 100% access to both medical and social services for the elderly, including access to home-care and basic domestic help. This may explain why, in our sample, widowed men receive significantly more help with housekeeping tasks than widowed women. Second, chronic physical diseases were present

in 65.9% of the people in our sample. Physical health and depression are closely related in the elderly (Beekman et al. 1995). We included functional limitations and chronic diseases as control variables. Umberson et al. (1992) did not include these variables. This might explain their results.

As stated, the strain variables explain only a small part of the estimated effect of widowhood on depression. There remains a large direct effect, especially for men. The theory we used focuses primarily on social-structural correlates of the widowhood experience. Widowhood also has intra-personal consequences. Widowhood may undermine the sense of control over events and the hopes for the future (Wortman and Silver 1989). In a prospective study about risk factors for depression in elderly people, Green et al. (1992) concluded that a lack of satisfaction with life and feelings of loneliness were significantly associated with the development of depression after 3 years. Intra-personal mediators of the widowhood-depression relationship may differ between men and women in ways that help to explain male vulnerability (or female resiliance) to depression following widowhood (Umberson et al. 1992).

The expectedness of death has been shown to influence the level of distress in recently bereaved men (Byrne and Raphael 1994). Neugarten (1970) stated that it is the unanticipated life event, not the anticipated, which is likely to represent the traumatic event. Moreover, major stresses are caused by events that unsettle the sequence and rhythm of the life-cycle. This is the case when widowhood occurs off-time. The on-time period for women is earlier than for men, because generally wives survive their husbands. So the anticipation and thus the age one loses ones partner may be important and may explain a part of sex differences found in the widowed.

The current study has some methodological limitations. First, the present study relied on self-reported measures of all variables. Some concern about recall and report bias, in which depressed subjects systematically may remember and report more negatively about their functioning, physical health and social support, is warranted. Report and recall bias may artificially raise the association of depression with other important variables. Second, this study is based on data that are cross-sectional, precluding any definite conclusions regarding causal relationships between variables. Longitudinal data are necessary to further unravel the complex interplay between the course of depressive symptoms and widowhood. Such data can also overcome the problem that some of the apparent gender differences seem to occur because men are widowed for a shorter average period of time than women (Umberson et al. 1992). In our study multiple regressions within the widowed group did not show a sex difference in the effect of duration of widowhood on depression. Duration of widowhood was determined retrospectively. This may imply a certain selection in the study group. Longitudinal data would allow prospective ascertainment of duration of widowhood. One may argue that the widowed appear to be depressed primarily because the healthiest and most well-adjusted individuals remarry. The consequence is that the effect of widowhood on depression may be overestimated. This particularly hampers the interpretation of gender differences in depression after widowhood, because men are more likely than women to remarry following widowhood (Cleveland and Gianturco 1976). So healthy men are more selected out of the widowed sample than healthy women. The greater chances of women to stay alive as a widow with depression and the greater chances of men remarrying would also be observed in a longitudinal cohort, with the consequence of inherent bias.

Despite these limitations, the present study suggests that being widowed is associated with current levels of depression, and this association is greater for men than women. Men who are widowed for a long time seem in particular to be vulnerable to depression. The hypothesis that widowhood creates different strains for men and women, closely tied to gender and marital roles, was hardly supported by our results. From a clinical point of view the results suggest that men who remain alone for longer periods after bereavement are especially prone to developing chronic depression. In women, who are as depressed in the first years after bereavement, the risk of remaining depressed is much lower. The different strains associated with widowhood were shown to have different meaning for men and women, which is in line with traditional role divisions in marriages. However, focusing on role change alone is probably insufficient in treating bereaved older men. Other factors, such as biological and intrapsychic factors need to be considered also. As decribed for instance for interpersonal psychotherapy (Frank et al. 1993), this is in line with recent developments in psychotherapy for depression for older people.

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